Claire R. McInerney
Ronald E. Day (Eds.)

Rethinking Knowledge Management

From Knowledge Objects
to Knowledge Processes

Springer

ISKM

Sensemaking and the Creation of Social Webs:

The Role of Storytelling and Conversations as Knowledge Processes

Minu Ipe

Arizona State University

Abstract: Narratives have long remained unacknowledged as knowledge processes within organizations. Narratives are so ubiquitous in nature and so taken-for-granted that they have remained in the shadow of formal knowledge management initiatives and programs. Yet, they play a critical role in the creation, transmission and application of knowledge in the workplace. This chapter addresses two types of narratives—storytelling and conversations. The role of these narratives as knowledge processes is examined, especially their contribution to sensemaking and the creation of social webs in work settings. How storytelling and conversations can be enabled within the contexts of designing work, workspaces, and enabling these narratives in virtual and global organizations is also briefly discussed.

Key words: storytelling, conversations, sensemaking, social webs

1 Introduction

Narratives are the foundation of social interactions, a necessary part of knowledge creation, transmission and application. Yet, the role of narratives as knowledge processes has remained largely unrecognized and unacknowledged in organizations. Narratives are such a ubiquitous part of social interactions both in the workplace and outside, that their contribution is often ignored in favor of more formal knowledge management projects and initiatives. This chapter addresses two types of narratives, storytelling and conversations; examines their roles as knowledge processes, and analyzes their contribution to sensemaking and the creation of social webs within organizations.

2 The Role of Language in the Cognitive Process

Cognition in organizations is distributed across individuals in varied communities, each of whom is engaged in tackling unique aspects of the organization's functioning. These communities need to interact with each other in a

sensemaking process, thereby creating the dynamic whole necessary for the organization to function (Boland, Tenkasi, & Te'eni, 1994). Since meaning in organizations is socially constructed, language becomes the conduit through which the sensemaking process takes place (Cohen & Levinthal, 1990; Pondy & Mitroff, 1979; Swap, Leonard, Shields, & Abrams, 2001).

Language is the essential tool that people use to make sense of their environments and share their understanding with others around them, to decipher the complexities that exist in organizations and comprehend the organizational environment. The importance of language to knowledge processes has been abundantly documented in the literature. In their analysis of factors that influence the combination and exchange of knowledge in organizations, Nahapiet and Ghoshal (1998) pointed to the importance of shared language; the means by which individuals engage in interactions with each other. Boland and Tenkasi (1995) argued the importance of communication in strengthening "perspective taking" and "perspective making" in organizations. Nonaka and Takeuchi (1995) also emphasized the importance of language in organizational knowledge processes. They listed three characteristics of knowledge creation: the use of metaphor and analogy to articulate tacit knowledge; the use of dialog and discussion to convert individual knowledge to organizational knowledge; and the use of ambiguity and redundancy to help create new ways of thinking.

Organizations are social communities wherein individuals and groups use relational structures and shared coding schemes for the creation and dissemination of knowledge (Zander & Kogut, 1995). Blackler, et al. (1998) argued the importance of achieving shared understandings to facilitate the sharing and absorption of knowledge. They pointed to aspects of organizational knowledge that are dependent on cultural meaning systems that arise from socialization and acculturation; features that are socially constructed and heavily dependent on the use of language. Language is important in the sharing of know-how (Kogut & Zander, 1992), in the creation of shared mental models (Madhavan & Grover, 1998; Senge, 1990) and in arriving at shared understandings (Nonaka, 1991). Incompatibilities in language and cultural conventions often results in a lack of shared context between senders and receivers of knowledge, referred to by Sulanski (2000) as the lack of absorptive capacity. Common understandings of knowledge and collective sensemaking occur through the use and application of language (du Toit, 2003), expressed through narratives within the organization. Narratives, therefore, become the primary means by which shared language and shared meanings evolve in organizations.

2.1 Narratives as Knowledge Processes

From the early hunter-gatherers who shared knowledge about game, techniques for refining tools, and other survival mechanisms to today's technology driven organizations, human beings have been engaged in generating

and applying knowledge through the use of narratives. Narratives are considered the fundamental cognitive processes through which people create and maintain understandings of themselves and their worlds (Bruner, 1986, 1990). The literature on narratives includes storytelling (Boje, 1991; 1995; Gabriel, 2000), myths (Campbell, 1976; Mahler, 1988), fairytales (Monin & Monin, 2005), dialog (Nonaka & Takeuchi, 1995) and conversations (Davenport & Prusak, 1998; Krogh, Ichijo & Nonaka, 2000). Narratives have been, and continue to be crucial mechanisms by which individuals and groups create, share and use knowledge in work contexts.

Every organization has functional spaces where individuals and groups engage in spontaneous, unsupervised activities that essentially serve the process of creating shared understanding and shared meaning. Gabriel (1995) referred to these spaces as the unmanaged organization; that part of an organization, which is unconstrained by formal rules and policies. Individuals participate in storytelling, creating and sharing myths and fairytales, and engage in conversations and dialog during their everyday interactions in the workplace. These interactions, many of which are spontaneous exchanges, are rarely monitored or recorded; often remaining well below the radar of those who initiate and manage knowledge related programs. Thus, a large part of the process of sensemaking and the creation of social webs occur within the terrain of the unmanaged organization; and a critical part of the engine that drives the unmanaged organization is narratives.

While all forms of narratives contribute to the generation and evolution of knowledge in organizations, of particular interest in this chapter are the closely linked narratives of storytelling and conversations. Storytelling is often initiated when individuals engage in a conversation (Mitchell, 2005), creating a context for the delivery or construction of the story. Likewise, the narration of a story could lead to an animated conversation when the listeners participate in the storytelling process. As knowledge processes, storytelling and conversations serve both basic and highly complex functions. At the basic level, these narratives form the foundation for social interactions, functioning as the primary communication tools by which individuals interact with each other in the workplace. At more sophisticated levels, storytelling and conversations serve as the conduits for problem solving, strategic decision-making, and for managing the everyday operations of a business. Storytelling and conversations craft the circumstances that facilitate the exchange of ideas and information, thereby making them potent knowledge processes. However, since these narratives exist primarily in the realm of the unmanaged organization, their role as knowledge processes remains unrecognized and unexamined.

2.2 Stories and Storytelling

Stories have been defined as "an oral or written performance involving two or more people interpreting past or anticipated experience" (Boje, 1999, p. 111).

The strength and power of stories is rooted in their ability to involve more than one person in an intimate experience of creating and sharing meaning, laying the foundation for sensemaking and the creation of organizational social webs. The role of storytelling and its contribution within organizations has been relatively well documented in the literature. Stories and storytelling have been grouped into multiple categories—Martin et al. (1983) identified seven types of common organizational stories, while Klein (1999) described eight characteristics of a story and Gabriel (1995) discussed four modes of subjectivity in organizational narratives. According to Boyce (1996), the key functions of storytelling in organizations include: confirming shared experiences and shared meaning, socializing new employees and contributing to organizational vision and strategy, preparing groups for activities that promote the organization's purpose, and providing a vehicle by which the experiences of individuals and groups are expressed. In addition, stories facilitate knowledge acquisition (Patriotta, 2003), reinforce norms (Czarniawska, 1997), address the expectations of new employees (Fletcher, 1996), and convey and strengthen the organization's culture (Boje, 1991; Jordan, 1996).

Gabriel (2000) defined storytelling as the art of creating knowledge through the process of creating meaning out of experiences in organizations. Stories find their sources in everyday organizational experiences. These experiences are then converted into stories when they are woven into a meaningful format that can be easily shared and absorbed by individuals and groups within the organizational context. Thus, stories often represent *packaged knowledge*, knowledge that comes with content, context and meaning.

The term "packaged knowledge" however, does not imply that stories are static narratives, passed on from one person to another as inert content. While there are some stories that are so well evolved over time that they are narrated without significant changes, most stories are created and transmitted through a highly interactive and participative process involving two or more individuals. Oral storytelling is a group process (Linde, 2001); one in which the storyteller and the listeners participate in a complex activity of co-creating and sharing the content and the meaning of the story. In this process of storytelling, knowledge gets created, packaged and transmitted within and across knowledge communities in organizations.

2.3 Conversations

While the role and significance of storytelling has been relatively well examined in the literature, very little attention has been paid to conversation and its role in the knowledge arena. This is probably because storytelling is much more structured an activity as compared to conversations, which tend to be nebulous and thus more difficult to study systematically. Krogh, Ichijo and Nonaka (2000, p. 125) described conversations as the "most natural and commonplace of human activities." Conversations tend to be informal in nature; primarily driven by immediate circumstances.

Nevertheless, conversations are extremely significant knowledge processes, playing a critical role in sensemaking and the development of social webs in organizations.

Conversations, as knowledge processes, serve two purposes: knowledge confirmation and knowledge creation (Krogh, Ichijo & Nonaka, 2000). Knowledge confirmation refers to verifying explicit knowledge, and conversations that aid this process tend to be limited in scope and focussed on facts and concepts attached to a bounded reality. Knowledge confirmation leads to more effective problem solving by constantly verifying expertise that has already been declared valid within the knowledge community. Conversations, whose purpose is knowledge creation, do not have a well-defined knowledge foundation. Such conversations tend to be broader in scope, and focus more on the future in order to define new organizational realties. The power of conversations lie in their ability to advance the creative power of an individual, combine it with that of others, resulting in knowledge creation that is far beyond the capacities of a single mind (Galvin, 1996).

Conversations can be both *formal* and *incidental* in nature. Formal conversations are those that occur at meetings, or those initiated by individuals with the specific aim of clarifying, confirming, or sharing particular pieces of information. On the other hand, incidental conversations—which can be as powerful if not more so than formal conversations—are those described as "water-cooler" conversations. Such conversations are characterized by more casual exchanges between individuals that may eventually result in confirming or creating knowledge. These interactions, whether they are around the water cooler or on a golf course, are means of putting together pieces of information—building the jigsaw that eventually results in individual and organizational knowledge.

3 The Role of Storytelling and Conversations in the Sensemaking Process

Organizations are complex multidimensional systems that have to manage information from multiple sources, both from the external environment and from within. Informational inputs from these varied sources need to be adequately interpreted before they can be meaningfully applied to meet the needs of the system (Daft & Weick, 1984). Sensemaking is defined as the "process through which various information, insight, and ideas coalesce into something useful, or stick together in a meaningful way" (Dougherty et al. 2000). Sensemaking is the means of developing collective understandings within small groups and the organization as a whole over a period of time. According to Weick (1993, p. 635), the premise of the concept of sensemaking is that "reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs." Sensemaking is a socially constructed process (Berger & Luckmann, 1967), one in which

individuals engage with others to create and share meaning in order to understand and effectively function within their own contexts. Sensemaking occurs when information is interpreted and reinterpreted over time, based on actions and their consequences within the community (Weick, 1995).

Narratives that are created and shared by members of a knowledge community facilitate the process of sensemaking. Storytelling and conversations help individuals to interpret cues from the external and internal environments and convert them into knowledge that can be utilized within their specific contexts. Weick (1995) introduced the concept of "intersubjective sensemaking," a process by which individuals make sense of new and tacit knowledge. This process is driven by face-to-face interactions where individuals communicate their understandings and exchange interpretations. Conversations are the primary means by which face-to-face communications take place in organizations. The process of intersubjective sensemaking is further enhanced when individuals narrate their stories and participate in the storytelling process. In the following section, the contribution of storytelling and conversations to sensemaking are examined in six areas: (1) articulating knowledge, (2) transmitting tacit knowledge, (3) shaping the knowledge context, (4) facilitating easy absorption, adaptation and recall, (5) just-in-time sharing of knowledge, and (6) linking knowledge levels within the organization.

3.1 Articulating Knowledge

The process of converting individual or group knowledge, both tacit and explicit into a form where it can be easily articulated, is one of the first steps in the sensemaking process. Stories help to articulate knowledge by providing easy means of combining verbal and visual information (Swap, Leonard, Shields, & Abrams, 2001), which also leads to better retention and recall. Stories are also able to transfer the complexities of work practices (Crossan et al., 1999) much more effectively than information that is delivered through databases, documents and training programs. It therefore allows the articulation of the subtleties and the richness of information that is so vital to sensemaking and the creation and application of knowledge in the workplace.

Stories that are created and shared within communities of practice enhance the community's reserves of expertise (Brown & Duguid, 1991) by providing the means through which knowledge is articulated and remembered within the context of the specific community. Within well delineated settings such as work groups, storytelling and conversations often help articulate technical understanding and interpret critical knowledge, bridging the gap between know-what and know-how. For example, at Xerox Corporation, "war stories" recounted by photocopier technicians helped to share technical expertise—a process of sensemaking within the community (Orr, 1990).

Conversations further assist in clarifying and enhancing the articulation process. Conversations, whether at formal meetings or by the water cooler, allow individuals to talk to others for specific pieces of information, discuss

and debate the narrator's stream of thought and meaning, creating the context for individual and group knowledge to be articulated in a form that is cogent and acceptable to the knowledge seekers. Such interactions create the means by which the nuances and meaning of knowledge is articulated for application by individuals and groups within the organization.

3.2 Transmitting Tacit Knowledge

In every organization, there are elements of knowledge commonly referred to as tacit knowledge that do not lend themselves easily to codification and capture. Tacit knowledge tends to be personal in nature, often so taken for granted, so deeply embedded in individuals that articulating it is challenging, even if individuals are motivated to share what they know with others (Nelson & Winter, 1982; Nonaka, 1991). Though expressing tacit knowledge in a form that can be utilized by others is arduous and often nearly impossible, the process of sensemaking would remain incomplete unless sufficient tacit knowledge possessed by individuals and groups were made explicit and shared within relevant contexts.

Nonaka and Takeuchi (1995) referred to the externalization process—the means by which individual tacit knowledge is converted into a form that allows it to be used by others. Storytelling and conversations play a considerable role in allowing individuals, whether consciously or unconsciously, to externalize their tacit knowledge. This is because stories allow tacit knowledge to be illustrated and absorbed, providing a bridge between the tacit and explicit domains (Linde, 2001). In addition, stories and conversations allow the use of metaphors, analogies, hypotheses and concepts, all of which supports the conversion of tacit knowledge into understandable knowledge.

The sharing of tacit knowledge is the first and most critical step in the knowledge creation process and conversations, which facilitate the exchange of ideas, are crucial to this process (Krogh, Ichijo & Nonaka, 2000). The mutual give-and-take that occurs during conversations allows individuals to create shared context and a shared intellectual space. Once this space is created, the ability to articulate and the ability to absorb knowledge increases significantly, making it easier for individuals and groups to exchange tacit knowledge. Stories and storytelling also lead to the creation of shared mental models and common understandings. According to Swap, Leonard, Shields, and Abrams (2001), even a single story that is highly contextualized has the ability to convey tacit knowledge. Stories, as packaged knowledge, allow individuals to share their experiences and their distilled learning from the experiences.

3.3 Shaping the Knowledge Context

The process of sensemaking is driven by various factors in its immediate organizational context, culture being a critical one. Sensemaking is only possible when people can share the knowledge they have and build on the

knowledge of others. Much of this knowledge sharing is shaped by the culture of an organization (DeLong & Fahey, 2000). Regardless of how strong an organization's commitment is to knowledge management, it has been found that the influences of the organization's culture are much stronger (O'Dell & Grayson, 1998). The most dominant transmitters of organizational culture are narratives that encompass norms, values and shared understandings.

The role of stories and storytelling in determining and transmitting organizational culture has been well documented (e.g., Boje, 1991, 1995; Jordan, 1996). Stories act as cultural codes (Hansen & Khanweiler, 1993), socially constructing representations of events that have some significance to individuals in an organization (Feldman, 1990). Storytelling and conversations not only transmit culture, but also are often the very instruments used to fashion the norms and practices of the knowledge community or the organization as a whole. An organization's culture represents shared assumptions that are reflected in values, norms and practices (Schein, 1985). Stories are often used to generate and maintain organizational norms that govern everything from informal interactions between individuals to formal policies and procedures that affect the process of sensemaking. Stories and conversations further serve to introduce these norms and values to newcomers and reinforce them to others within the organization. This process results in the creation of a shared culture, without which it is difficult to communicate and transfer knowledge effectively (Davenport & Prusak, 1995).

Learning the stories of a group or the organization as a whole is one way of learning the culture of the larger community. According to Linde (2001), critical to becoming part of an organization is learning to tell its stories and one's own in a manner that is consistent with the rules of the larger group. Becoming integrated into the culture of the knowledge community provides individuals with the shared context and shared vocabulary that is essential for sensemaking. In addition to storytelling, formal and incidental conversations also contribute to determining and preserving the cultural context of organizations. Conversations are the vehicles by which information about "the way we do things around here" is most readily transmitted. They are the narratives used on an everyday basis to set the cultural context for sensemaking in organizations.

3.4 Facilitating Easy Absorption, Adaptation and Recall

"If you want people to remember information and believe it, your best strategy in almost every case is to give that information in the form of a story" (Solovy, 1999, p. 45). Since stories represent packaged knowledge, it allows for relatively easy repetition and recall. Stories are not bound to the initial storyteller or the group whose experience led to the creation of the story. Good stories can be repeated numerous times by different individuals, expanding the scope of the sensemaking processes. Knowledge is considered to be *sticky* (Szulanski, 2000; Von Hippel, 1998), stickiness being the incremental

expenditure involved in converting knowledge into a form that is usable and easily understood by the information seeker. When the cost is low, the stickiness of the knowledge is low. According to von Hippel, stickiness for the knowledge supplier comes from the tacitness of the knowledge that has to be shared, while absorptive capacity creates stickiness for the knowledge user. Knowledge transmitted through stories and conversations address the issues of tacitness and absorptive capacity because of the bounded context of stories and the free give-and-take format of conversations.

In analyzing the role of storytelling in the organizational learning process, Taylor, Fisher and Dufresne (2002) referred to the aesthetic experience of enjoyment that comes from storytelling, resulting in more engagement among participants in the experience and greater repetition over a period of time. Apart from the enjoyment factor, stories facilitate recall because of a feature called "recipient design" (Sacks, 1992 as cited in Linde, 2001). Recipient design refers to how narrators of stories shape the story to respond specifically to the listener's context. The process of adapting and arranging the narrative to facilitate understanding not only encourages easy recall; it also simplifies and expedites sensemaking for those engaging in the process. Stories are more colorful, distinct, engaging and related to personal experiences than organizational rules and procedures. These characteristics of stories tend to make them more memorable, allowing them to have significant influence in guiding organizational behavior and increasing the likelihood of being remembered over a period of time (Swap, Leonard, Shields & Abrams, 2001). Thus, it can be argued that storytelling contributes to the sensemaking process by creating and sustaining organizational memory.

3.5 Just-In-Time Sharing of Knowledge

Sensemaking is often considered to be a process that evolves over a period of time within organizational contexts. However, when sensemaking is examined more closely, there appears to be a time continuum, ranging from issues that need immediate resolution to those whose meaning and purpose are identified over time. Storytelling and conversations, critical to the sensemaking process in general, are especially important to sensemaking that has to take place in limited periods of time. Two aspects of the nature of knowledge have been identified as critical barriers to effective knowledge sharing: limited shelf life and radical uncertainty (Weiss, 1999). Limited shelf life of knowledge points to the dynamic nature of knowledge that often causes it to become inaccurate or obsolete quickly as the application it supports often evolves constantly. An example of limited shelf life would be knowledge about technology-based applications that have rapid evolution cycles. Radical uncertainty refers to the variations required in the application of knowledge across different contexts and different settings, that are often not obvious before the individual or group engages with the situation. Radical uncertainty is one characteristic of new product development teams, where individuals from multiple areas of expertise

have to pool their knowledge to develop the new product or solution. Both limited shelf life and radical uncertainty demand that knowledge be made available on a just-in-time basis, allowing for interaction between individuals to adapt it to the situation at hand.

To speed up the sensemaking process, or to enhance the effectiveness of knowledge sharing, organizations have invested considerable resources to design and implement technology based knowledge management systems. Research has provided evidence of the use of technology to capture, store, classify and retrieve information through systems such as digital libraries, databases, data mining, knowledge directories and organizational memory systems(e.g., Ackerman, 1998; Weiser & Morrison, 1998; Constant, Sproull & Kiesler, 1996). However, storytelling and conversations have the advantage of being the means through which just the required amount of information is shared in relatively short periods of time.

A relevant story that is narrated at an opportune moment plays an important role in relaying important information in a manner that is easily absorbed and understood. Conversations with experts and peers in an organization that are directed toward knowledge acquisition or knowledge confirmation often save the information seeker the time involved in researching databases, which in many cases contains information that is not well organized nor easily accessible. Even if the information is easily accessed, it may require interpretation before it can be applied in a work situation; the interpretation often requiring the insights of an expert. In most organizational settings, it is often much easier to walk over to an expert's cubicle and engage in an informal conversation about an issue than to engage in an information research activity, especially if the subject is complex and does not lend itself to simple explanations or answers. Additionally, the confidence that individuals derive from information exchanges with experts should not be underestimated.

3.6 Linking Knowledge Levels Within the Organization

Knowledge exists at multiple levels in the organization—explicit codified knowledge in documents and databases; knowledge that resides in organizational norms, procedures and protocols; and tacit knowledge that exists within individuals and communities of practice. Connecting knowledge across these varied sources and levels is a necessary part of the sensemaking process. Storytelling and conversations play a critical role in this process. These narratives help to weave knowledge elements together and interpret the knowledge that exists at the different levels within the organization. For example, knowledge contained in databases and documents is often instantly understood only by those who created and contributed it or others in their immediate work setting. If this knowledge has to be accessed by others, there needs to be a communication process that allows the knowledge to be interpreted and absorbed by others who seek it. Conversations with the knowledge contributors are often the only means by which the codified

knowledge is converted into either explicit or tacit individual or group knowledge. As another example, knowledge that is embedded in organizational processes is often made explicit through storytelling or conversations with those who are close to or created the processes. Narratives therefore serve as the bridges that link individuals with knowledge that exists at different levels within the organization.

4 The Role of Storytelling and Conversations in the Creation of Social Webs

Since human beings are social animals, it is easily understood why interpersonal relationships are critical to the effectiveness of knowledge processes within organizations. Organizations are social communities within which individual and group expertise is exchanged and transformed into applications that advance the goals of the firm (Kogut & Zander, 1992). Formal and informal conversations and the ability to engage in storytelling are among the means by which these social communities are created and sustained in the workplace. The social webs that are formed as a result of interpersonal interactions provide the formal and informal connections that are the pathways to knowledge creation, exchange and application. Since individuals who share friendships and informal personal relationships with each other are more likely to communicate with each other (Amato, 1990; O'Reilly & Chatman, 1986), it is worth understanding how narratives advance social relationships, which in turn, create and strengthen social webs within organizations. In the following section, the contribution of storytelling and conversations in the creation of organizational social webs are examined in the following areas: (1) initiating and building social connections, (2) strengthening informal channels, and (3) facilitating knowledge sharing.

4.1 Initiating and Building Social Connections

The act of engaging in a storytelling activity or participation in a conversation by itself binds individuals within a social circle, whether the activity has any instrumental outcomes or not. Though the process of storytelling often begins with one individual narrating a story, it is not contained within that individual. The power and influence of stories come from their emotional appeal and the ability to draw listeners into the process. The process of storytelling creates a feeling of connectedness, because when individuals engage with a story, they often remember their own experiences that resonate with the story being told (Taylor, Fisher & Dufresne, 2002). Additionally, listeners in the storytelling process are not just passive recipients of the information. Oral storytelling is a group process (Linde, 2001). Listeners engage in the process; agreeing or disagreeing with the storyteller and shaping

and changing the narrator's version of not just the story, but often, its meaning as well (Linde, 2001).

As with storytelling, conversations are a conduit to building and strengthening social connections. Formal conversations help to build relationships among individuals who use the interaction to advance and clarify knowledge within their specific context. Incidental conversations have a powerful role to play in the development and sustenance of social networks. This everyday social mechanism used by individuals to exchange information about hobbies and interests, families, politics and the news of the day is instrumental in establishing human connections between people in the workplace. The ability to engage in a conversation is often the first step in building professional relationships and friendships. So even if every conversation does not result in a tangible knowledge exchange, they are the means by which social webs are built and strengthened in the workplace.

4.2 Strengthening Informal Channels

Social connections established in the workplace serve as the channels for knowledge creation, dissemination and utilization. These informal social networks are vital to facilitating learning and knowledge sharing in organizations (Brown & Duguid, 1991; Nahapiet & Ghoshal, 1998). Storytelling and conversations provide individuals the opportunity to build informal networks. Once created, individuals are more likely to communicate more frequently and with more intensity with others within the network, strengthening the network as a whole.

In their theory of social capital, Nahapiet and Ghoshal (1998) described social capital as the sum of the networks and the assets that can be mobilized through the network within organizations. According to them, the primary benefits of networks are that they provide easy access to resources, which, in turn, facilitate knowledge exchanges by providing access and referrals to the right individuals in a timely manner. Gold, Malhotra, and Segars (2001) reinforced the need for an organizational culture that promotes formal and informal interactions among individuals. They argued that dialog between individuals is the basis for the creation of new knowledge in organizations. There is sufficient empirical evidence that supports the importance of informal social networks in the knowledge exchange process. Rulke and Zaheer (1999) referred to these networks as *relational learning channels*—informal opportunities that facilitate knowledge transfer. Truran (1998) described how informal networks lead to the creation of knowledge relationships that are then critical to sharing tacit knowledge. Research also indicates that even when clearly designated formal channels of communication exist in organizations, individuals tend to rely more on informal relationships for their interactions (Stevenson & Gilly, 1991). Informal social networks often tend to bypass the formally prescribed pathways for interaction and communication within the organization.

Informal channels, enhanced through conversations and storytelling not only allow individuals to be better informed about the knowledge needs of others, but also serve as the means to satisfy their own knowledge requirements. Boje (1991, p. 107) referred to the "talk-by-turn-situations" that occur during storytelling, where the narrator and the listeners participate to create a shared experience. Likewise, conversations give individuals the opportunity to identify others who share common working goals and strategic interests within the organization. This not only creates and strengthens relationships, but also allows knowledge to be shared on a need-to-know basis (Jones & Jordan, 1998), thereby enhancing the productivity of the shared knowledge and the efficacy of the sharing process.

4.3 Facilitating Knowledge Sharing

Storytelling and conversations, in the process of building social webs, serve as instruments of knowledge sharing within organizations. Since knowledge exists across diverse units in the organization, knowledge dispersion is a significant barrier to effective knowledge sharing (Weiss, 1999). Conversations that connect individuals in informal relationships across the organization not only lay the foundation for and strengthen social networks, but also serve as the means by which dispersed knowledge can be readily identified. According to Kogut & Zander (1992), an important aspect of knowledge in organizations is simply knowing who knows what within the knowledge community. When a problem arises that needs multiple pieces of knowledge for its resolution, the quickest method of identifying individuals and units that possess this knowledge is by initiating communication through the social networks within the organization. Conversations, both formal and incidental, serve as the means of activating informal social webs, helping to identify relevant individuals and groups whose knowledge and expertise might be relevant to interpreting and resolving the knowledge needs of a situation.

In order for it to be relevant, knowledge has to be created and applied through interactions with all stakeholders involved in the situation (Weiss, 1999). The give-and-take of conversations and the storytelling process provide the necessary interchange for knowledge sharing and application. This interactivity between individuals allows for the customization of knowledge to the immediate requirements of the situation, neutralizing the problem of creating and storing the knowledge in advance. When individuals from different organizational units converge to solve a problem, their diverse knowledge is pooled when they engage in purposive conversations. Such conversations may also result in individuals narrating stories from their experiences of similar problem solving situations. These exchanges not only enhance the effectiveness of knowledge sharing, but also serve to create new social connections and strengthen existing ones.

A unique advantage of storytelling and conversations as knowledge processes is that they are not bound by the physical spaces of the organization

nor by its communication infrastructure. Individuals communicate through conversations and stories both in the workplace and outside it. Whether on a golf course or over lunch in a restaurant, individuals can share what they know about a problem or situation without being limited by the confines of the workplace. Even when the interaction does not result in a specific knowledge outcome, engaging in a stimulating conversation or exchanging stories of common interest serves to strengthen the relationship between the individuals concerned, and that, in turn, is likely to facilitate knowledge sharing at some point in the future.

5 Enabling Storytelling and Conversations

There is implicit understanding in the literature that narratives are critical to knowledge creation, transmission and application in organizations. Yet their role as knowledge processes has not been examined adequately by researchers or capitalized on by organizations. The narratives that have been discussed in this chapter often get buried within the everyday actions of work, and the hard-to-grasp nature of narratives creates significant challenges for even those who wish to understand and utilize them. Thus the focus of organizations has veered toward tackling those aspects of knowledge and developing those knowledge processes that are more readily accessible.

So the question remains, how should organizations approach storytelling and conversations as knowledge processes? Can, and indeed, should these narratives be considered from the perspective of managing them? This chapter suggests that for the most part, narratives thrive outside the realm of the managed organization. To approach them from the traditional perspective of knowledge management would be to deny their unique contributions as knowledge processes. To force fit storytelling and conversations into knowledge management initiatives would be to undercut the unique role of these narratives in the knowledge process. Swap, Leonard, Shields and Abrams (2001) cautioned against directly manipulating the storytelling process in organizations. They recommended instead that storytelling be influenced and enabled to enhance their value to the organization. While the value added to the organization from storytelling and conversations cannot be computed accurately, it is nevertheless important to examine the possibilities of enabling these narrative within three contexts: the design of work, the design of workspaces, and encouraging storytelling and conversations in virtual and global organizations.

5.1 Design of Work

"Conversations are the most important form of work" (Webber, 1993, p. 28). Yet, they are often considered an insignificant activity in most work settings, something that is incidental to what most individuals are hired to do. Water

cooler socializing is often considered a waste of time by those who do not appreciate the significance of such interactions in the process of sensemaking and the creation of social webs in the workplace. In their rush to create "efficiency," organizations often discourage opportunities for narratives, impacting long term effectiveness. Discouragement of social interactions can be as serious as commands from the CEO asking employees to not engage in casual social interactions such as the directive issued by John Akers when he was the head of IBM (Davenport & Prusak, 1998). If organizations are to capitalize on narratives as knowledge processes, individuals need to be able to engage in storytelling and seemingly purposeless conversations without the threat of sanctions, even if it is just in the form of disapproval from colleagues and supervisors.

Organizations may have to reconsider what *being at work* means if they are to utilize the potential of conversations and stories to create new knowledge and apply it appropriately in order to advance goals and achieve strategic objectives. Creating or identifying occasions where individuals can exchange stories is one way of encouraging storytelling within the organization. Linde (2001) presented a taxonomy of potential storytelling occasions; events that lend themselves to storytelling without the need for any formal intervention. Recognizing the potential of such events and promoting informal interactions between individuals will allow organizations to benefit from the creation of social webs and the innate sensemaking that occurs during these interactions.

5.2 Design of Workspaces

In addition to rethinking the nature of work, the design of the work environment also needs consideration when thinking about enabling narratives in the workplace. Nonaka and Konno (1998, p. 40) described the concept of *ba*, defined as "a shared space for emerging relationships," where space refers to physical, virtual and mental spaces, and any combination of the three. Mental spaces refer to shared ideas, experiences and ideals within the organization, and they are critical to the creation and application of knowledge. Within organizations however, it is much easier to manage the creation of physical and virtual *ba*. The need for physical spaces that facilitate the "chatting" and storytelling needed to build social networks are often overlooked in the design and construction of workspaces. Offices often designed to economize the use of space deny employees the room to engage in spontaneous exchanges which often leads to the creation of new social relationships or the creation and adaptation of knowledge to address specific challenges in the organization. Physical spaces, such as the "talk rooms" in some Japanese firms that foster work-related or random discussions among individuals (Davenport & Prusak, 1998), are critical to sensemaking and the creation of social networks. While it may not always be feasible to set aside space designated just for informal exchanges, organizations interested in advancing their knowledge practices

will benefit from considering the role of shared spaces in enabling storytelling and conversations.

5.3 Encouraging Storytelling and Conversations in Virtual and Global Organizations

Individuals in organizations today are increasingly connected through virtual networks, facilitated by advances in information and communication technologies. Work that once centered on all employees sharing the same physical space has now evolved to individuals being located in multiple locations not just within one country but across the globe. In addition, work practices such as telecommuting have ensured that physical proximity is no longer a taken-for-granted work practice. While these changes in the workplace have made significant contributions to advancing the needs and goals of individuals and organizations, they have eroded somewhat the spaces for human interactions such as storytelling and conversations. Empirical evidence suggests that individuals are more likely to engage in knowledge sharing interactions if they have strong informal relationships with their colleagues, often developed through physical proximity (Monge et al. 1985). In addition, physical proximity creates shared language and shared culture, which in turn facilitates effective knowledge exchanges (Davenport & Prusak, 1998). Weick (1997) added that information exchanges using electronic formats, while expediting data sharing, inadequately communicate the meaning embedded in the information. This inability to create shared understandings is especially significant when electronic means are used for conversations and storytelling.

Stories stored in databases often tend to be inert (Linde, 2001), discouraging enjoyment, repetition and recall, ultimately ceasing to add value to the organization. Stories lose much of their context and flair when removed from the storyteller. The act of narrating a story to an audience by itself can be considered a network creating, knowledge activity in organizations. So, when stripped of its context and the human touch of the storyteller, stories often lose their impact. Solutions such as virtual chat rooms and communities have ameliorated some of the disadvantages of geographic distances, creating virtual *ba* in many organizations. Yet, informal face-to-face interactions are still the most critical means by which knowledge is created, shared and applied in the workplace (Brown & Duguid, 1991; Davenport & Prusak, 1998; Nahapiet & Ghoshal, 1998; Rulke & Zaheer, 1999). Therefore, while technologies that facilitate knowledge processes in organizations should be embraced, they should also be examined to understand if and how they support narratives such as conversations and storytelling.

Storytelling and conversations make a substantial contribution to sensemaking and the creation of social webs in organizations even though they are often taken-for-granted within knowledge contexts. If organizations are to take advantage of the potential of these narratives, they need to examine these natural processes more closely to see how they can be enabled

in organizational environments. Organizations can look at the design of work, workspaces and communications in virtual and global organizations to identify means of encouraging and facilitating narratives. As advances are made in understanding knowledge and knowledge processes, it is imperative that researchers and practitioners consider the role of narratives and examine their contribution to the creation, transmission and application of knowledge in organizations.

References

Ackerman, M. S. (1998). Augmenting organizational memory: A field study of Answer Garden. *ACM Transactions on Information Systems, 16*(3), 203–224.

Amato, P. R. (1990). Personality and social network involvement as predictors of helping behavior in everyday life. *Social Psychology Quarterly, 53*, 31–43.

Berger, P. L., & Luckmann, T. (1966). *The social construction of reality.* Garden City: NY: Doubleday.

Blackler, F., Reed, M., & Whitaker, A. (1993). Editorial introduction: Knowledge workers and contemporary organizations. *Journal of Management Studies, 30*(6), 851–862.

Boland, R. J., & Tenkasi, R. V., & Te'eni, D. (1994). Designing information technology to support distributed cognition. *Organization Science, 5*(3), 456–475.

Boland, R. J., & Tenkasi, R. V. (1995). Perspective making and perspective taking in communities of knowing. *Organization Science, 6*(4), 350–372.

Boje, D. M. (1991). The storytelling organization: A study of story performance in an office-supply firm. *Administrative Science Quarterly, 36*(1), 106–126.

Boje, D. M. (1995). Stories of the storytelling organization: A postmodern analysis of Disney as "Tamara-Land". *Academy of Management Journal, 38*(4), 997–1035.

Boyce, M. E. (1996). Organizational story and storytelling: A critical review. *Journal of Organizational Change, 9*(5), 5–26.

Brown, J. S., & Duguid, P. (1991). Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation. *Organization Science, 2*(1), 40–57.

Bruner, J. S. (1986). *Actual minds, possible worlds.* Cambridge, MA: Harvard University Press.

Bruner, J. S. (1990). *Acts of meaning.* Cambridge, MA: Harvard University Press.

Campbell, J, (1976). *Creative mythology.* Harmondsworth: Penguin.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*, 128–152.

Constant, D., Sproull, L., & Kiesler, S. (1996). The kindness of strangers: The usefulness of electronic weak ties for technical advice. *Organization Science, 7*(2), 119–135.

Crossen, M. M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Academy of Management Review, 24*, 522–537.

Czarniawska, B. (1997). *Narrating the organization.* Chicago: University of Chicago Press.

Daft, R. L., & Weick, K, E. (1984). Toward a model of organizations as interpretation systems. *Academy of Management Review, 9*(2), 284–295.

Davenport, T. H., & Prusak, L. (1998). *Working knowledge*: *How organizations manage what they know*. Boston, MA: Harvard Business School Press.

DeLong, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *The Academy of Management Executive, 14*(4), 113–127.

Dougherty, D. (1992). Interpretive barriers to successful product innovation in large firms. *Organization Science, 3*, 179–202.

Dougherty, D., Borrelli, L., Munir, K., & O'Sullivan, A. (2000). Systems of organizational sensemaking for sustained product innovation. *Journal of Engineering and Technology Management, 17*, 321–355.

du Toit. A. (2003). Knowledge: a sense making process shared through narrative. *Journal of Knowledge Management*(3), 27–37.

Feldman, S. P. (1990). Stories as cultural creativity: On the relation between symbolism and politics in organizational change. *Human Relations, 43*, 809–828.

Fletcher, C. (1996). "The 250 lb man in the alley": Police storytelling. *Journal of Organizational Change Management, 9*(5), 35–42.

Gabriel, Y. (1995). The unmanaged organization: Stories, fantasies and subjectivity. *Organization Studies, 16*(3), 477–502.

Gabriel, Y. (2000). *Storytelling in organizations: Facts, fictions, and fantasies*. Oxford, UK: Oxford University Press.

Galvin, R. (1996). Managing knowledge towards wisdom. *European Management Journal, 14*(4), 374–378.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational perspective. *Journal of Management Information Systems, 18*(1), 185–214.

Hanson, C. D., & Kahnweiler, W. M. (1993). Storytelling: An instrument for understanding the dynamics of corporate relationships. *Human Relations, 46*(12), 1391–1410.

Jordan, A. T. (1996). Critical incident story creation and culture formation in a self-directed work team. *Journal of Organizational Change Management, 9*(5), 27.

Klein, G. (1999). *Sources of power: How people make decisions*. Cambridge, MA: MIT Press.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, competitive capabilities, and the replication of technology. *Organization Science, 3*(3), 383–397.

Krogh, G.V, Ichijo, K, & Nonaka, I. (2000). *Enabling knowledge creation*. New York: Oxford University Press.

Leonard-Barton, D. (1995). *Wellsprings of knowledge*: *Building and sustaining the source of innovation*. Boston: Harvard Business School Press.

Linde, C. (2001). Narrative and social tacit knowledge. *Journal of Knowledge Management*(2), 160–170.

Madhavan, R., & Grover, R. (1998). From embedded knowledge to embodied knowledge: New product development as knowledge management. *Journal of Marketing, 62*, 1–12.

Mahler, J. (1988). The quest for organizational meaning: Identifying and interpreting the symbolism in organizational stories. *Administration & Society, 20*(3), 344–368.

Martin, J., Feldman, M., Hatch, M. J., & Sitkin, S. (1983). The uniqueness paradox in organizational stories. *Administrative Science Quarterly, 28*(3), 438–453.

Mitchell, H. J. (2005). Knowledge sharing: The value of storytelling. *International Journal of Organisational Behavior, 9*(5), 632–641.

Monge, P. R., Rothman, L. W., Eisenberg, E. M., Miller, K. L., and Kirste, K. (1985). The dynamics of organizational proximity. *Management Science, 31*, 1129–1141.

Monin, N., & Monin, J. (2005). Hijacking the fairy tale: Genre blurring and allegorical breaching in management literature. *Organization, 12*(4), 511–529.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review, 23*(2), 242–267.

Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change.* Cambridge, MA: Belknap Press.

Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, November-December, 96–104.

Nonaka, I., & Konno, N. (1998). The concept of Ba: Building a foundation for knowledge creation. *California Management Review, 40*(3), 40–54.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge creating company: How Japanese companies create the dynamics of innovation.* New York: Oxford University Press.

O'Dell, C., & Grayson, C. J. J. (1998). *If only we knew what we know.* New York: The Free Press.

O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behavior. *Journal of Applied Psychology, 71*, 492–499.

Orr, J. E. (1990). Sharing knowledge, celebrating identity: Community memory in a service culture. In D. S. Middleton & D. Edwards (Eds.), *Collective remembering: Memory in society* (pp. 169–189). Beverly Hills, CA: Sage.

Pan, S. L., & Scarbrough, H. (1999). Knowledge management in practice: An exploratory case study. *Technology Analysis and Strategic Management, 11*(3), 359–374.

Patriotta, G. (2003). Sensemaking on the shop floor: Narratives of knowledge in organizations. *Journal of Management Studies, 40*(2), 349.

Pondy, L. R., & Mitroff, I. (1979). Beyond open systems models of organizations. In B. M. Staw (Ed.), *Research on organizational behavior.* Greenwich, CT: JAI Press.

Rulke, D. L., & Zaheer, S. (2000). Shared and unshared transactive knowledge in complex organizations: An exploratory study. In Z. Shapira & T. Lant (Eds.), *Managerial and organizational cognition* (pp. 83–100). Mahwah, NJ: Erlbaum.

Schein, E. H. (1985). *Organizational culture and leadership.* Newbury Park, CA: Sage.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Currency/Doubleday.

Solovy, A. (1999). Once upon a culture. *Hospitals and Health Networks, 73*(5), 26.

Stevenson, W. B., & Gilly, M. C. (1991). Information processing and problem solving: The migration of problems through formal positions and networks of ties. *Academy of Management Journal, 34*(4), 918–928.

Swap, W., Leonard-Barton, D., Shields, M., & Abrams, L. (2001). Using mentoring and storytelling to transfer knowledge in the workplace. *Journal of Management Information Systems, 18*(1), 95–114.

Taylor, S. S., Fisher, D., & Dufresne, R. L. (2002). The aesthetics of management storytelling: A key to organizational learning. *Management Learning, 33*(3), 313–330.

Truran, W. R. (1998). Pathways for knowledge: How companies learn through people. *Engineering Management Journal, 10*(4), 15–20.

Webber, A. M. (1993, January - February). What's so new about the new economy? *Harvard Business Review*, 4–11.

Weick, K. (1993). The collapse of sensemaking in organizations: the Mann Gulch disaster. *Administrative Science Quarterly, 38*(4), 628–652.

Weick, K. (1995). *Sensemaking in organizations.* Thousand Oaks, CA: Sage.

Weick, K. (1997). Cosmos vs. chaos: Sense and nonsense in electronic contexts. In L. Prusak. (Ed.). *Knowledge in organizations.* Boston: Butterworth-Heinemann.

Weiss, L. (1999). Collection and connection: The anatomy of knowledge sharing in professional service firms. *Organization Development Journal, 17*(4), 61.

Weiser, M., & Morrison, J. (1998). Project memory: Information management for project teams. *Journal of Management Information Systems, 14*(4), 149–166.

Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. *Organization Behavior and Human Decision Processes, 82*(1), 9–27.

von Hippel, E. (1998). Economics of product development by users: The impact of "sticky" local information. *Management Science, 44*(5), 629–644.

Zander, U., & Kogut, B. (1995). Knowledge and the speed of the transfer and imitation of organizational capabilities. *Organization Studies, 6*(1), 76–92.